INF GAIN

International Journal of Advanced Engineering, Management and Science

(IJAEMS)

ISSN: 2454-1311

Vol-7, Issue-1; Feb, 2021

Journal Home Page Available: <a href="https://ijaems.com/">https://dx.doi.org/10.22161/ijaems.com/</a>
Journal DOI: <a href="https://dx.doi.org/10.22161/ijaems.72.1">https://dx.doi.org/10.22161/ijaems.72.1</a>



# **Employability of Bachelor of Science in Information Technology (BSIT) Graduates of Nueva Ecija University of Science and Technology-San Isidro Campus**

Ellen Jane G. Reyes<sup>1</sup>, Rodella F. Salas<sup>2</sup>

<sup>1</sup>Faculty Member of College and Communications Technology, NEUST, San Isidro Campus, Philippines <sup>2</sup>Chairman of College and Communications Technology, NEUST, San Isidro Campus, Philippines

Received: 01 Dec 2020; Received in revised form: 16 Jan 2021; Accepted: 21 Jan 2021; Available online: 14 Feb 2021 ©2021 The Author(s). Published by Infogain Publication. This is an open access article under the CC BY license (https://creativecommons.org/licenses/by/4.0/).

Abstract— This study generally aimed to trace the current status and employment of the BSIT graduates of Nueva Ecija University of Science and Technology, San Isidro Campus Academic Year 2018-2019. The descriptive method was used with a questionnaire as the major data-gathering instrument. There were 168 total graduates but only 146 of them responded to the study. Descriptive statistics such as frequency counts, ranking, and percentage were used.

This study aimed to determine the profile of employed, self-employed, and unemployed respondents. Based on the tallied results, there is a high rate of employability with regular/permanent status outside Nueva Ecija. The majority of employed respondents landed their job in one to six months duration as walk-in applicants with initial gross monthly earning of 5,000 to less than 10,000 pesos. The findings also revealed that based on the respondents' perspective, the BSIT curriculum is relevant to their first job. The majority of the self-employed respondents were on-line resellers and contented in none existence of a boss. The majority of unemployed respondents considers family concern and decided not to find a job and supported by parents as a way of financing daily living.

Keywords— COVID-19, employment, graduates, information technology, tracer study.

## I. INTRODUCTION

Covid-19 affected higher educational institutions not just in Wuhan, China where the virus originated but all other higher educational institutions in 188 countries as of April 06, 2020 (Toquero, C. M.,2020). Educational institutions like the Nueva Ecija University of Science and Technology was also disturbed by this unforeseen event.

Likewise, despite the Covid-19 virus, the university is serious about implementing one of its core values "excellence". The university continually tracks graduates every year as a parameter of excellence by conducting annual tracer studies.

Tracer studies are means of maintaining curriculum relevance and providing targeted benefits to graduates to enhance the marketability of educational programs. Adequate knowledge on employment outcomes of training graduates could assist in formulating policy towards combating some of social problems such as unemployment. Students, particularly graduates of any course, are required to earn a sense of competence in their chosen field and develop confidence to explore new possibilities and new employment specially that there is increasing competition among rivals at work (Mathed, 2008).

The Nueva Ecija University of Science and Technology, specifically, the faculty of the College of Information and

Communications Technology is committed to complying with CHED's mandate to conduct yearly trace study. The essence of a higher education institution or university is to produce employable graduates. It measures the individual institution's success and potential to deliver work-ready students (Latif & Bahroom, 2010). Many universities have the philosophy of strengthening existing connections and building new bridges to the industry. In view of this, the NEUST Mission is to develop new knowledge and technologies and transform human resources into productive citizenry to bring about development impact to local and international communities (NEUST, 2020; Corpuz, 2020).

The researchers aimed to present employment data to show connections to the industry and examine if the university's mission was realized. May the data help the university, faculty, students, and stakeholders in reviewing and enhancing curriculum for the field of Information Technology (IT) is ever dynamic; its advancement and development had been rapid and its evolvement is a continuous process. (CMO 53. S. 2006). The information gained from these can be used by the graduates' alma mater and other educational partners for curriculum development and other new changes by administering and evaluating a survey on the cohort of graduates from a given school, occupation, specialty, education, their work of characteristics, qualifications and skill development (Gines, 2004).

# II. OBJECTIVES OF THE STUDY

The main objective of the study was to trace the BSIT graduates of NEUST San Isidro Campus of A.Y. 2018-2019.

Specifically, this employability study sought to answer the following questions:

- 1. What is the profile of employed respondents regarding:
  - 1.1 Company Location;
  - 1.2 Present Employment Status;
  - 1.3 Initial Gross Monthly Earning;
  - 1.4 How Respondents Find Their First Job;
  - 1.5 Duration to Land Their First Job; and
  - 1.6 Relevance of the Curriculum in their First Job
- 2. What is the profile of self-employed respondents regarding:
  - 2.1 Type of Business;
  - 2.2 Reasons for being self-employed; and
  - 2.3 Monthly income of the business

- 3. What is the profile of unemployed respondents regarding?
  - 3.1 Reasons for being unemployed; and
  - 3.2 How do respondents finance their daily living?

#### III. METHODOLOGY

The researchers used the descriptive method of research. Descriptive research can be explained as a statement of affairs as they are at present with the researcher having no control over variable. Moreover, "descriptive studies may be characterized as simply the attempt to determine, describe or identify what is, while analytical research attempts to establish why it is that way or how it came to be (John Dudovskiy).

Descriptive research is "aimed at casting light on current issues or problems through a process of data collection that enables them to describe the situation more completely than is possible without employing this method."

The respondents of the study were one hundred sixty-eight (168) BSIT graduates of A.Y. 2018-2019. There were one hundred forty-six (146) who responded to the survey or 86.90%, reliable and credible enough to represent the BSIT population.

The researchers used a modified Commission on Higher Education Graduate Tracer Survey. To easily identify the employability of BSIT 2018-2019, three Google forms consisting of three different links were created. The first Google form and link https://tinyurl.com/BSIT-2018-2019 EMPLOYED was designed for employed respondents; the second Google form and link https://tinyurl.com/BSIT-2018-2019-SELF-EMPLOYED, was designed for selfemployed or respondents with business and the last Google form and link https://tinyurl.com/BSIT-2018-2019-**UNEMPLOYED** designed was for unemployed respondents.

The modified questionnaires were planned and created by the researchers. Suggestions for modifications and improvements were done; there was a dry run which was participated by selected BSIT students.

The researchers got data from the Registrar's office containing a list of BSIT graduates with personal information. From November 2019 to August 2020, the links were disseminated to CICT NEUSTSIC closed group, graduates' e-mail account, group chat, and messenger to gather data.

The researchers also composed and sent private messages to BSIT graduates for them to be informed of the tracer study to quickly fill out and submit the questionnaire online.

Upon completion of the data gathering procedure, responses were tabulated to facilitate the analysis during the interpretation of data. The data gathered were tallied, analyzed, and interpreted. Descriptive statistics such as frequency counts, ranking, and percentage were used.

The formula is presented below.

$$\begin{array}{ccc} P & & = & \underline{f} \\ & & N \end{array}$$

Where:

P = is the percentage

f = is the frequency

 $N = total \ responses$ 

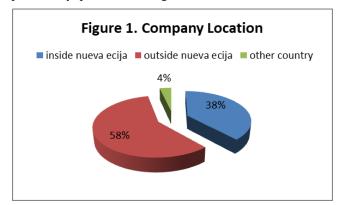
#### IV. RESULTS AND DISCUSSION

This section provides the presentation of the results of the study. Corresponding analysis and interpretation regarding some presented data were discussed.

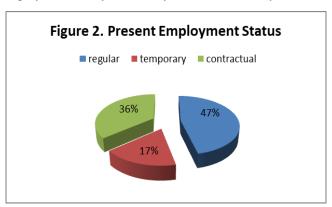
Table 1. The Employed Respondents

| Total<br>Number<br>of<br>Graduates | Total<br>Number of<br>Respondents | Total<br>Number of<br>Employed<br>Respondents | Percentage |
|------------------------------------|-----------------------------------|---|------------|
| 168                                | 146                               | 86  | 58.90%     |

Table 1 shows that only eighty-six (86) or 58.90% were employed one year after graduation. Hiring new employees is one crucial task for any employer. That is why in the absence of in-house training program, employers prefer applicants who can quickly work independently (Kelley & Gaedeke, 1990; Webster & Taylor, 1995). Based on the study of Mina et. al,2020 these BSIT respondents during their On-the-Job Training, were excellent in perseverance in pursuing goals and continuous improvement, innovative skills, planning and organizing skills and problem solving skills. This study proved that BSIT respondents were ready in the real world of work because of their higher level of personal skills particularly, problem-solving skills.

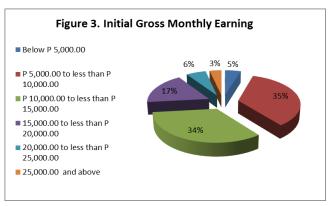


As shown in Fig. 1, majority or 58% of the employed respondents were working outside Nueva Ecija. Curran & Greenwald (2006) emphasized that if graduates want an opportunity to get their feet in the door and prove themselves, they will have to redefine for their future employer what they have really learned after four years.



The present employment status indicated that majority or 46.51% of employed respondents' status were regular. The findings of the study (Mina et. al, 2020) have shown that the respondents were excellent in numerous personal skills. Likewise, they were very good in most of their technical understanding skills which are hard skills in the field of Information Technology.

Information Technology (IT) may be the most stimulating program in terms of skill gaps for the reason that there is the fast speed of change in terms of hardware and software development (Patacsil & Tablatin, 2017). This feedback study during their On-the-Job training makes a payment for them to be a regular employee.



As shown in Fig. 3, majority or 35% of the employed respondents were earning 5,000 to less than 10,000 pesos. These employed graduates were earning minimum salary wage as a stepping stone from different companies outside Nueva Ecija. This finding is the same as the study of Billo et al. (2017) which found out that the majority of the respondents (52.08%) were earning P5,000 to 10,000. This implies that the monthly earning of NEUST BSIT fresh graduates is similar to other colleges or state universities.

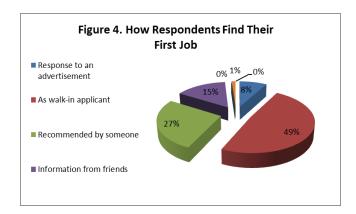
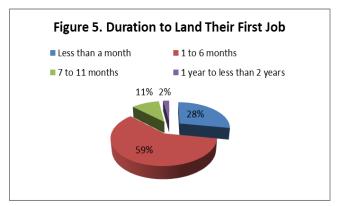
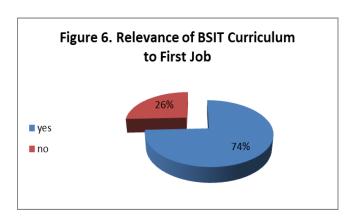


Fig. 4 reveal that, majority or 49% of the respondents find their first job as walk-in applicants. This implies that graduates really tried their best effort to land get their jobs on their own where independence is being emphasized and practiced (Dotong et. al, 2016)



This figure showed that majority or 59% of the employed respondents took 1-6 months to land their first job. The study confirms that most graduates did not spend a long time securing employment mainly because they were equipped with the professional knowledge and skills compatible with the requirements of the industry (Verecio et. al, 2017). Similarly, in the study of Del Rosario (2019), 42% of their respondents were able to find jobs in 2–5 months after graduation.



As shown in Fig. 6, majority or 74% declared that the BSIT Curriculum is relevant to their first job. These are

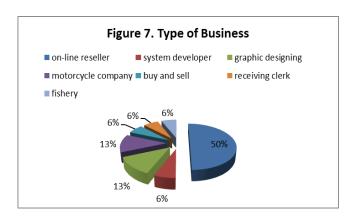
the utilization of computers and computer software to plan, install, customize, operate, administer, and manage information technology infrastructure. The result in this study lends support to the idea that "competitive graduates in the job market often depend on a strong curriculum of the programs" (Ahmad et al., 2012).

It goes beyond telling that the curriculum has to be relevant in relation to the demands of the industry, because "impractical university curriculum is one of the factors that cause graduates' skills gap, along with other factors like constant changes in the labor market, and students' passivity in planning and developing their career" (Tran, 2018).

Table 2. The Self-Employed Respondents

| Total<br>Number<br>of<br>Graduate<br>s | Total<br>Number of<br>Respondent<br>s | Total Number of Self- Employed Respondent s | Percentag<br>e |
|--|---------------------------------------|---|----------------|
| 168                                    | 146                                   | 16  | 10.96%         |

Table 2 manifests that sixteen (16) or 10.96% of the respondents were self-employed. This is a small percentage but it helped respondents to survive and make earnings during the Covid-19 pandemic. Social distancing, self-isolation, and travel restrictions have lead to a reduced workforce across all economic sectors and caused many jobs to be lost (Nicola et al, 2020).



As presented in Fig. 7, the majority or 50% of the self-employed respondents were on-line resellers. The evolution of digital marketing triggers the respondents to engage in this type of business. Small or giant companies are now enthusiasts of on-line selling just to reach out customers. Among those self-employed individuals, a good number are into freelancing work (Hussenot & Sergi, 2019), a job opportunity brought about by the easy access

to the internet. Many of these freelancers were highly educated (Beno, 2019; Burke & Cowling, 2019). It is also a good confirmation that the respondents were excellent in technical understanding skills (Mina, et. al 2019).

The Philippines has been called the social media capital of the world because most of the social media users have an extraordinarily high usage time of about four hours per day (Sanchez, 2020). People are taking advantage of the availability of the internet and technology to get jobs (Al-Hadi & Al-Aufi, 2019).

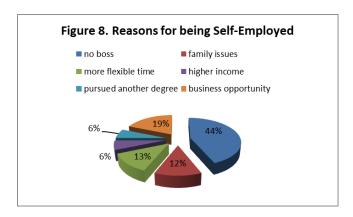


Fig. 8 indicates that the majority or 44% of respondents choose to be self-employed because of none existence of a boss. Respondents can freely use their time; can make actions and decisions without an authority figure.

Self-employed persons are more satisfied with their work than employees, mainly because they enjoy more interesting jobs and greater autonomy (Benz & Frey, 2006). According to psychological theories, both autonomy and the chance to pursue interesting activities should be seen as important elements of a broader human need for self-determination.

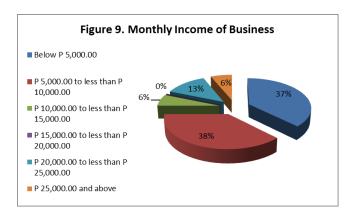


Fig. 9 reveals that the majority or 38% of self-employed businesses were earning 5,000 to less than 10,000 pesos. As respondents are beginning to explore the business opportunity that is not part of the BSIT curriculum, having a minimum monthly income business is quite good.

The respondents during their OJT found out that they were very good in terms of their entrepreneurial thinking skills. Since the students are taking an IT course, they did not excel in this kind of soft skills. (Mina et.al 2020)

*Table 3. The Unemployed Respondents* 

| Total    | Total      | Total      | Percentag |
|----------|------------|------------|-----------|
| Number   | Number of  | Number of  | e         |
| of       | Respondent | Unemployed |           |
| Graduate | S          | Respondent |           |
| S        |            | s          |           |
| 168      | 146        | 44         | 30.13%    |

Table 3 shows that forty-four (44) or 30.13% of the respondents were unemployed when the survey was conducted. Compared to the study of Mina et.al (2020) before the spread of the Covid-19 virus, there was only twenty-eight percent (28%) of unemployed graduates.

It indicated that the Covid-19 pandemic greatly affects all aspects of our life. The functioning of global supply chains has been disrupted, affecting companies across the globe. Millions of people could lose their jobs over the coming months (Fernandes, 2020).

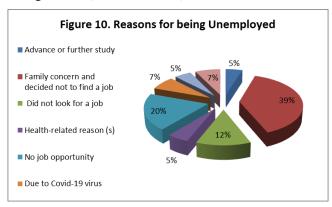


Fig. 10 shows that the foremost reason for being unemployed of the respondents was a family concern and decided not to find a job. Furthermore, family concern was also the primary reason why some graduates are not yet employed in the study of Billo et al. (2017). The bottom reason for being unemployed was "advance or further study", "no job opportunities" and "due to Covid-19".

The data imply that those who are not yet employed at the time this study was conducted did not perceive their qualifications, desire for furthers studies, health, and interest to look for a job as essential issues for being unemployed (Albina & Sumagaysay, 2020).

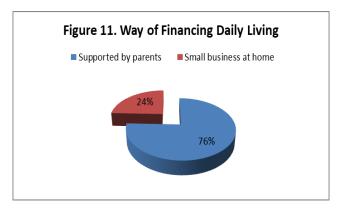


Fig. 11 shows that unemployed respondents were supported by parents to finance their daily living. As a consequence, it is the family's resources which plat the most important role in the case of unemployment. As the ties among family members of the larger network are close and as there is a strong sense of interdependence and social solidarity, other family members are called to provide help in this situation of need (Lukas, 2012).

It is indicated that the Philippines have a strong family ties component. Strong family ties are also associated with less geographical mobility since ties are more useful if people live close to each other (Alesina & Giuliano, 2010)

## V. CONCLUSION

This study focused on the number and percentage of total employed one year after graduation since it is the need for the university. This tracer study is similar to the study of Verecio, R.L. et al, 2017, where BSIT graduates of 2019-2020 of Leyte Normal University Tacloban City, were tracked to evaluate their employability status, the relevance of curriculum, and duration to land their first job. The OJT factor was also considered to help train the students to become responsible workers in the hereafter. The results of the two studies were the same in terms of high employability rates, declared relevance of curriculum, and 1 to 6 months' time frame to land their first job.

Another tracer study of Wanya (2016), profiled the BSIT graduates of Cagayan State University during the school year 2010-2014 in terms of employment status of the graduates, reasons of the unemployment of graduates and

graduates' insights on their success to their profession. The results of the two studies are similar in terms of high percentage of employability, relevance or usefulness of IT skills to their job, same monthly income of self-employed ranging from 5,000 to 10,000 pesos and the unemployed graduates were also supported by parents.

Lastly, the tracer study of Mina, J.C. et al (2020), profiled the BSIT graduates A.Y. 2016-2018 of Nueva Ecija University of Science and Technology, San Isidro Campus in terms of duration to land their first job, present employment status, monthly salary, and reasons for unemployment. The results of the two studies are similar in terms of 1 to 6 months to land their first job, both BSIT graduates have regular permanent status and the same reason for unemployment is a family concern. The difference is the monthly salary; the latest study indicated that BSIT employed are earning 5,000 to 10,000 which is comparably lower, two years ago.

The employability data of this research was successfully collected and tallied. However, the field of Information Technology (IT) has been ever dynamic; its advancement and development had been rapid, and its involvement is a continuous process. To face the challenges of progress, the Commission on Higher Education (CHED) recognizes the need to be responsive according to the current requirements of the country. Hence, it is essential and necessary that the country's IT capability should be continuously developed and strengthened to be at par globally (CMO No. 53; s. 2006).

After satisfactorily completing all the requirements leading to a BSIT degree, students may qualify for but not limited to applications developer, database administrator, entrepreneur in IT industry, information security administrator, information technology instructor, network administrator, network engineer, systems analyst, technical support specialist, test engineer, web administrator / web master and web developer (CMO no. 53, s. 2006).

A follow-up tracer study must be conducted to carefully analyze if the BSIT graduates of Nueva Ecija University of Science and Technology are in line with the mandated memo.

Table 4 Proposed Measures to Employ BSIT Graduates

| Concern   | Reasons   | Strategy  | Responsible Person/s  |
|---|---|---|---|
| The majority of employed respondents were working outside Nueva Ecija       | The reasons are unknown during the conduct of this tracer study.        | Conduct a follow up study about<br>the respondents' reasons for<br>working outside Nueva Ecija                  | • •   |
| The majority of employed respondents were earning 5,000 to less than 10,000 | <ul><li>BSIT is a non-board course</li><li>The only way to be</li></ul> | <ul> <li>Revisit the admission policies</li> <li>The applicant must be graduating from an accredited</li> </ul> | Director of Admission and<br>Registration, Students,<br>Faculty, Members of the |

| pesos only.  | admitted to the university is to pass the NEUST College Admission Test(NEUST CAT) | high school, have an acceptable score on English and Math subject since the BSIT course is more logical and project management.  Conduct a university admission interview  Survey the perception of BSIT students towards their course                  | Administration  |
|--|---|---|---|
| The majority of employed respondents find their first job as a walk-in applicant | Lack of linkages to IT companies  | <ul> <li>Assign OJT to IT-based companies specifically outside the province since there are a limited number of IT companies present in the province.</li> <li>Establish strong linkage to Industry that offers internship to hiring program</li> </ul> | OJT Director, OJT<br>Coordinators, Students,<br>Faculty, Members of the<br>Administration |
| The majority of the unemployed respondents decided not to find a job             | Lack of initiative to look and apply for a job                                    | <ul> <li>Conduct an exit interview</li> <li>Conduct career guidance and counseling before graduation</li> <li>Conduct alumni homecoming and job placement program</li> </ul>  | Guidance Counselor, Director of Alumni, Students, Faculty, Members of the Administration  |

### REFERENCES

- [1] Albina, Albert C. and Sumagaysay, Lilian P. (2020) Employability tracer study of Information Technology Education graduates from a state university in the Philippines. Social Sciences & Humanities OpenVolume 2, Issue 1, 2020, 100055
- [2] Ahmad, K., Zainal, N. F. A., Idris, S., & Rahmat, M. (2012). Relationship between employability and program outcomes achievement. Procedia *Social and Behavioral Sciences*, 59, 254–263. https://doi.org/10.1016/j.sbspro.2012.09.273
- [3] Alesina, Alberto & Giuliano, Paola (2010) The power of the family *J Econ Growth* 15:93–125 DOI 10.1007/s10887-010-9052-z
- [4] Al-Hadi, N. A., & Al-Aufi, A. S. (2019). Information context and socio-technical practice of digital nomads. Global Knowledge, Memory and Communication, 68(45), 431–450. https://doi.org/10.1108/GKMC-10-2018-0082
- [5] Beno, M. (2019). Perspective on Slovakia's freelancers in sharing economy – case study. In R. Silhavy (Ed.), CSOC 2019, AISC 984 (pp. 119–130). Springer. https://doi.org/10.1007/978-3-030-19807-7\_13
- [6] Benz, Matthias & Frey, Bruno S. The value of doing what you like: Evidence from the self-employed in 23 countries Institute for Empirical Research in Economics, University

of Zurich, Winterthurerstr. 30, CH-8006 Zurich, Switzerland doi:10.1016/j.jebo.2006.10.014

- [7] Billo, M., Albina, A., Constancio, M., Dinapo, W. Inao, M., & Tapang, J. (2017). Employability tracer study of B.S. Computer science, B. S. Information technology, and associate in computer science graduates of the college of Arts and Sciences from the year 2014 to 2016. CSIT Journal, 5, 90-102. ISSN: 2362-7662.
- [8] CMO 53, S. 2006
- [9] Corpuz, Rolando C. (2020), Tracer Study of Nueva Ecija University of Science and Technology Graduates (Atate Campus). International Journal of English Literature and Social Sciences, 5(2). ISSN: 2456-7620 https://dx.doi.org/10.22161/ijels.52.17
- [10] Curran, S. J., and S. Greenwald. (2006). Smart moves for liberal arts grads: Finding a path to your perfect career. Berkeley, CA: Ten Speed Press.
- [11] Del Rosario, P.Y. (2019). Tracer study of graduates of the College of Industrial Technology. *International Journal of Academic Research in Psychology*, 3(5), 23-31
- [12] Dudovskiy, John (2018) The Ultimate Guide to Writing a Dissertation in Business Studies: a step by step assistance retrived from https://research-methodology.net/descriptiveresearch/#\_ftnref1

- [13] Dotong, Conrado I., Chavez, Nemy H., Camello, Nestor C., De Castro, Evelyn L., Prenda, Maria Theresa B., Laguador, Jake M. (2016) TRACER STUDY OF ENGINEERING GRADUATES OF ONE HIGHER EDUCATION INSTITUTION IN THE PHILIPPINES FOR ACADEMIC YEAR 2009-2012. European Journal of Engineering and Technology, Vol. 4 No. 4, 2016 ISSN 2056-5860, ISSN 2056-5860
- [14] Fernandes, Nuno (2020) Economic Effects of Coronavirus Outbreak (COVID-19) on the World Economy (March 22, 2020). Available at *SSRN*: https://ssrn.com/abstract=3557504 or http://dx.doi.org/10.2139/ssrn.3557504
- [15] Gines, A.C. (2004) Towards relevance and sustainable quality in teacher education, In M. Fremerey; S. Amini, ; M. Wesseler (Ed.) Promoting Relevance and Quality in International Higher Education (pp 207-208). Witzenhausen; Germany: ISOS, University of Kassel Press.
- [16] Hussenot, A., & Sergi, V. (2019). Collaborating without (formal) organization: How do freelancers question the definition and the role of organizations? In Global perspectives on human capital-intensive firms (pp. 53–71). IGI Global. [Crossref], [Google Scholar]
- [17] Kelley, Craig A. & Gaedeke, Ralph M. (1990) Student and Employer Evaluation of Hiring Criteria for Entry-Level Marketing Positions retrieved from https://doi.org/10.1177/0273475
- [18] Latif, Latifah Abdol & Bahroom, Ramli (2010) OUM's Tracer Study: A Testimony to a Quality Open and Distance Education. ASEAN Journal of Open and Distance Learning Vol. 2 No. 1 (2010)
- [19] Lukas, Kaelin (2012) Individual vs. Family Resilience to Unemployment A Perspective from the Philippines, p. 145
- [20] Matthed, J. Professional graduates.www.yahoo.com.sg/status of graduates/2009/report/1.23.2008
- [21] Mina, Jennilyn C., Garcia, Marvin DG. & Reyes, Ellen Jane G. (2020) Industry Partners' feedback on the OJT performance of Bachelor of Science in Information Technology (BSIT) Students. *International Journal of Advanced Engineering, Management and Science* (*IJAEMS*), [Vol-6, Issue-4, Apr-2020] ISSN: 2454-1311 retrieved from https://dx.doi.org/10.22161/ijaems.64.3
- [22] Mina, Jennilyn C., Reyes Ellen Jane G.& Salas, Rodella F. (2020) A Tracer Study of Bachelor of Science in Information Technology (BSIT) Graduates of Nueva Ecija University of Science and Technology (NEUST), San Isidro Campus. *International Journal of English Literature* and Social Sciences, 5(4) Jul-Aug 2020 retrieved at https://iiels.com/
- [23] NEUST Mission and Vision. (2020). Retrieved from https://neust.edu.ph/index.php/administration/neust-visionmission-tagline-core-values
- [24] Nicola, Maria, Alsafi, Zaid, Sohrabi, Catrin, Kerwan, Al-Jabir, Ahmed, Iosifidis, Christos Agha, Maliha, and Agha, Riaz (2020) The Socio-Economic Implications of the Coronavirus and COVID-19 Pandemic: A Review. International Journal of Surgery. DOI: 10.1016/j.ijsu.2020.04.018

- [25] Patacsil, Frederick F.;. Tablatin, Christine Lourrine S. (2017). Exploring the Importance of Soft and Hard Skills as perceived by IT Internship Students and Industry: A Gap Analysis. Journal of Technology and Science Education, Vol. 7, No. 3, pp. 347–368
- [26] Sanchez, Martha Jean (2020) Number of social network users Philippines 2017-2025 retrieved from https://www.statista.com/statistics/489180/number-ofsocial-network-users-in-philippines/
- [27] Tran, L. H. N. (2018). Game of blames: Higher education stakeholders' perceptions of causes of Vietnamese graduates' skills gap. International Journal of Educational Development, 62, 302– 312.https://doi.org/10.1016/j.ijedudev.2018.07.005
- [28] Toquero, Cathy Mae Challenges and Opportunities for Higher Education Amid the COVID-19 Pandemic: The Philippine Context Pedagogical Research, v5 n4 Article em0063 2020
- [29] Verecio, Rommel L., Caluza, Las Johansen, Quisumbing, Lowell A, Funcion, Devine Grace D, Gotardo, Micheline A., Cinco, Jeffrey C. A TRACER STUDY OF THE BS INFORMATION TECHNOLOGY GRADUATES OF SY 2009-2010 TO 2011-2012 OF THE LEYTE NORMAL UNIVERSITY TACLOBAN CITY. International Journal of Social Science and Economic Research. ISSN: 2455-8834. Volume:02, Issue:08 "August 2017"
- [30] Wanya, Cherry S.(2016) Tracer Study of BSIT Graduates at Cagayan State University at LAL-LO (S.Y. 2010-2014). International Journal of Advanced Research in Management and Social Sciences ISSN: 2278-6236